BEFORE THE PUBLIC UTILITIES COMMISSION OF THE

STATE OF CALIFORNIA

Order Instituting Rulemaking Regarding Policies, Procedures and Rules for Development of Distribution Resources Plans Pursuant to Public Utilities Code Section 769.	Rulemaking 14-08-013 (Filed August 14, 2014)

SOUTHERN CALIFORNIA EDISON COMPANY'S (U 338-E) COMMENTS ON ASSIGNED COMMISSIONER'S RULING RE: DRAFT GUIDANCE FOR USE IN UTILITY AB 327 (2013) SECTION 769 DISTRIBUTION RESOURCE PLANS

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I. INTRODUCTION AND EXECUTIVE SUMMARY

Pursuant to the *Assigned Commissioner's Ruling Re: Draft Guidance For Use In Utility Ab 327 (2013) Section 769 Distribution Resource Plans ("ACR")* and ALJ Sullivan's November 26, 2014 Email Ruling, Southern California Edison Company ("SCE") respectfully submits these comments on the ACR and the draft Distribution Resource Plan Guidance ("Draft Guidance") document that was attached to the ACR.

SCE thanks the Commission for developing the Draft Guidance, which provides a framework for its Distribution Resources Plan ("DRP") proposal and will assist all stakeholders in meeting the critical goals associated with this proceeding: to modernize the electric distribution system to accommodate two-way flows of energy and ancillary services throughout the investor-owned electric utilities' networks; to enable customer choice of new technologies and services that reduce emissions and improve reliability in a cost effective manner; and to animate opportunities for Distributed Energy Resources ("DERs") to realize benefits through the provision of grid services. SCE looks forward to not only working with the Commission and

stakeholders to achieve these goals, but also helping to lead the efforts to modernize the grid and facilitate both customer choice and integration of DERs into its distribution system.

Pursuant to Section 769, SCE's DRP must be submitted to the Commission by July 1, 2015. SCE requests that the Commission issue the final DRP Guidance by February 2, 2015 to allow time for such guidance to be effectively incorporated into SCE's DRP proposal. SCE recommends changes and clarifications to the Draft Guidance, which will assist its development of the DRP proposal and enable it to meet the goals outlined in the Draft Guidance's framework:

- The Integration Capacity Analysis should permit the IOUs the flexibility to address each of its criteria at a level of granularity commensurate with each criteria's purpose, as well as with the data, methodologies and tools available to the IOU. Streamlined methods should be used to address the dynamic configurations of distribution circuits;
- The Integration Capacity Analysis assessment regarding "the state of DER deployment and DER deployment projections" should be performed at the DER category level;
- The consideration "Very High Potential Growth" DER growth scenario should be postponed until such time as the parties are able to develop the data relevant to this scenario and give the scenario a considered and well-grounded analysis;
- The Draft Guidance should clarify that data access proposals should be consistent not only with D.14-05-016, but also other existing customer data privacy and security protection requirements;
- The Draft Guidance's Safety Considerations should be clarified to state that the DRP proposals should "[d]elineate ~~how~~ *the scenarios under which* DERs and *grid modernization* ~~can~~ *could* support higher levels of system reliability and safety (e.g., improved SAIDI/SAFI, resiliency, improved cybersecurity);"
- The Draft Guidance's Safety Considerations should be clarified to state that SCE should describe major considerations regarding DER equipment on the distribution grid, rather than safety considerations regarding the DER equipment, itself. SCE is not the appropriate authority to address major safety considerations of DER equipment for the owners/operators and first-responders, and believes that the task is best undertaken by the actual owners of the DER equipment;
- The Draft Guidance's requirement to describe "efforts to inform and engage relevant local authorities that may bear the responsibility for local permitting of DER equipment" should be narrowed to the extent that it addresses DER equipment owned or operated by customers and third parties because SCE neither has the ability, nor bears responsibility for obtaining, permitting for third-party equipment.

II. SCE COMMENTS ON FRAMEWORK FOR DISTRIBUTION PLANNING

SCE believes the Draft Guidance will help SCE achieve what it understands is the central purpose of Public Utilities Code Section 769 ("Section 769") -- to facilitate the integration of DER at "optimal locations" on the distribution system in a manner that attempts to minimize overall system costs and maximize ratepayer benefits while maintaining system safety and reliability.

The activities that take place in this proceeding over the next few years will help to establish a necessary body of information that will inform the broader structural and policy choices for industry organization and for moving California forward in pioneering new technologies while meeting new and evolving customer needs and interests. In order to assure the most effective and efficient implementation of these changes, however, the Commission and parties (1) must act with foresight, (2) must understand the impact that distribution planning changes will have on customers, markets and technologies, (3) must be able to accommodate such changes, and (4) must be facile enough to accommodate the developments necessary to support and to facilitate all these changes. It is with these basic concepts in mind that SCE submits its comments on the Draft Guidance framework.

III. SCE COMMENTS ON DRAFT DRP CONTENT GUIDANCE

A. Integration Capacity Analysis

1. The Integration Capacity Analysis Should Result In a Set of Criteria Supporting Increased Integration of Distributed Resources

The Draft Guidance states that its proposed Integration Capacity Analysis is an analytical framework intended to "demonstrate how much capacity may be available on the Distribution network … based on the capability of the system to integrate some quantity of DER within

thermal ratings, protection system limits and power quality and safety standards."[1] The Draft Guidance states that this analysis should be performed down to the circuit level, and the results should be published via online circuit level maps. SCE appreciates the value such an analysis could provide to the Commission, the IOUs and other stakeholders. SCE is reviewing various tools to enable this type of analysis to be performed and recognizes that there are multiple methodologies to calculate an integrated hosting capacity. Thus, SCE recommends that new methods and engineering criteria be permitted to be developed or adopted to meet the objectives of the Integration Capacity Analysis. SCE believes that to properly take the specified criteria into account, i.e., thermal ratings, protection system limits, power quality and safety standards, SCE will likely have to conduct separate analysis, each focused on one of these criteria at a time.

Regarding thermal ratings, SCE recognizes that maintaining power flow within loading limits on all conductors on each of its distribution circuits and ensuring adequate protection of the SCE grid is important. This concept is consistent with current planning methodologies. Thus, SCE would conduct a review based on any known constraints. Both the thermal and protection reviews serve to ensure that appropriate level of safety—consistent with utility standards—is adhered to.

Regarding power quality, SCE recommends that the Draft Guidance permit and enable streamlined Integration Capacity Analysis at a higher level of granularity through a detailed study of approximately 30 representative circuits which SCE finds are representative of SCE's 4,500 distribution circuits. Such a detailed review, even though only for representative circuits, is expected to result in applicable criteria that could be applied broadly taking into account assumptions about reconfigurations and available mitigation on the grid and emerging smart inverters. Results from the detailed study could be compared to individual circuit modeling analysis on an ongoing basis as improvements in tools and methodologies evolve.

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[1] Draft Guidance, at p. 15.

Establishing the above-described planning criteria and analysis for DER integration would support a transformation of traditional distribution planning processes and enable increased penetration of DERs into the distribution grid. The results of these analyses can be used to develop DER penetration criteria at the feeder level based on thermal ratings, protection system limits and power quality and safety standards, and could be published via online circuit level maps. SCE believes this approach provides an efficient method of analysis that both achieves the Commission's goal, and transforms the traditional methods of electric system planning.

2. SCE Will Disperse Existing DER System-Level Forecasts for Particular Types of DERs Based on Customer Demographics

The Draft Guidance's Integration Capacity Analysis requires SCE to "assess [the] current system capability and any planned investments within [a] 2 year period and clearly articulat[e] assumptions for any changes in load and DER growth over the 2-year period." The Draft Guidance's Integration Capacity Analysis also requires an assessment regarding "the state of DER deployment and DER deployment projections" and that this assessment should "provide current levels of deployment territory wide, plus assessment of geographic dispersion and identify circuits that exhibit high levels of penetration." Data for particular types of DER—Energy Efficiency and Demand Response—does not exist to produce accurate geographic area forecasts finer than the system-level. Thus, to satisfy these growth assessments in the DRP proposal to be filed July 1, 2015, SCE plans to develop projections by dispersing existing DER system-level forecasts (e.g. CPUC-managed EE Potential Study) to more granular geographic areas based on available data regarding customer characteristics (e.g., sector, NAICS code, CEC building type, etc.). SCE believes that this is a reasonable estimation methodology for the first DRP filing.[2]

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[2] However, due to the lack of data, current estimation methods may contain significant uncertainties.

To obtain the data necessary to inform more accurate DER locational forecasts and to support DRP objectives, SCE recommends that the CPUC work collaboratively with the CEC, CAISO and IOUs to develop a framework for how to conduct DER potential growth studies at more localized levels.

3. Assessments of DER Growth, Current Penetration and Forecasts of Geographic Dispersion Should Be Done at the DER Category Level

As quoted in Section III.A.2, the Draft Guidance states that its proposed Integration Capacity Analysis includes an assessment regarding "the state of DER deployment and DER deployment projections" and that this assessment should "provide current levels of deployment territory wide, plus assessment of geographic dispersion and identify circuits that exhibit high levels of penetration" for "each of the identified DERs." SCE requests clarification regarding the scope of the analysis: whether the analysis addresses each category within the Draft Guidance's definition of Distributed Energy Resources (i.e., Distributed Renewable Generation, Energy Efficiency, Energy Storage, Electric Vehicles, and Demand Response) or the subcategories for each category. Due to the data limitations present in local DER potential, SCE recommends that these assessments be conducted at the DER category level, and not the sub-category.[3]

B. DER Growth Scenarios: The "Very High Potential Growth" Scenario Should Be Postponed

The Draft Guidance identifies three ten-year DER growth scenarios—which include expected geographic dispersion at the substation level—that should be developed in the DRP proposal: an adapted IEPR "Trajectory" case for DER deployment for distribution planning; an adapted IEPR "High Growth" case for DER adoption; and a "Very High Potential Growth" case

[3] SCE sees value in doing these analyses at the sub-category level once the requisite data becomes available.

for use of DERs to meet transmission system needs and resource adequacy, with "key inputs drawn from achieving goals like those articulated in Zero Net Energy targets and the Governor's Zero Emission Vehicle Action Plan." SCE recognizes the value that growth scenarios can provide in the distribution planning context.

However, based upon information and data currently available, SCE recommends that the consideration "Very High Potential Growth" be postponed until such time as there is sufficient data for accurate analysis. More specifically, the rules and framework for the Zero Net Energy targets have not yet been developed and, as such, the efforts to model a scenario based upon such targets would be imprecise and would not serve the goals of this proceeding. At this time, SCE suggests that the Commission use the "High Growth" scenario to address high growth forecasts for the July 1, 2015 DRP proposal, and address the "Very High Potential Growth" scenario once sufficient information regarding that scenario has been developed.

C. Data Access

SCE supports the Draft Guidance's restriction that the DRP's data access proposals be limited to "data not subject to D.14-05-016." Although SCE is fully supportive of data sharing, SCE also believes that such data sharing must be done in compliance with existing laws and regulations and recommends that the Draft Guidance note that data access proposals should ensure that customer privacy and system security, generally, are protected.[4]

In addition, SCE requests that the Draft Guidance clarify what data needs to be shared with whom. For example, the ESPI Customer Data Access System is designed to transmit customer-confidential interval usage data only to *customer-authorized* third parties. If the third-

[4] For example, SCE notes that other confidentiality requirements that could be implicated when developing a data access proposal include Commission's rules regarding the confidentiality of market sensitive procurement information, North American Electric Reliability Corporation's (NERC) Critical Infrastructure Protection (CIP) regulations, Critical Energy Infrastructure Information (CEII) regulations, customer confidentiality requirements and/or other confidentiality requirements (such as proprietary information and trade secrets).

party is not directly authorized by the customer, then ESPI may not be the correct tool for interval data transfer.[5]

The Draft Guidance also asks utilities to describe "plans for obtaining data from Smart Meters, beyond interval billing data that, reflect power quality and other factors. These data potentially include, voltage, frequency, reactive power/power factor, etc." SCE would like to clarify that SCE has different types of Smart Meters with differing capabilities. Residential Smart Meters are currently only able to record energy consumption, energy exports, and voltage data - not information regarding power quality, frequency, reactive power, or power factor.[6] SCE's three-phase meters, which are generally for commercial and industrial customers, are able to record additional information, such as power quality, voltage, frequency, reactive power, and power factor. Notwithstanding these differences, SCE does not propose here to use ESPI or any other data exchange platform for data disclosure broader than what customers have traditionally authorized the IOU to disclose to third parties.[7]

D. DERs and Distribution System Grid Modifications May Enhance System Reliability and Safety

The Draft Guidance requires SCE to "[d]elineate how DERs can support higher levels of system reliability and safety (e.g., improved SAIDI/SAFI, resiliency, improved cybersecurity)." SCE supports the notion that DERs can potentially support higher levels of system reliability and safety, but believes that this effort should proceed hand-in-hand with appropriate investments into modernizing the distribution grid. Therefore, SCE suggests that the requirement read

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[5] The Commission has not ordered the IOUs to use ESPI to transfer data not authorized for release by the customer.

[6] Please note that some residential Smart Meters may be able to record this information in the future, but not all Smart Meters have the same functionality.

[7] SCE notes that one category of distribution system characteristics data identified by the Draft Guidance to be included in a data access proposal is "Backup Generator population." This term is not defined. SCE understands the term to include only those backup generators that would otherwise fall within the scope of the definition of Distributed Energy Resources, which is stated on page 27 of the Draft Guidance.

"Delineate *the scenarios under which* DERs and *grid modernization could* support higher levels of system reliability and safety."

Regarding "major considerations for owners/operators of DER equipment, and for first-responders," SCE is not the appropriate authority, nor the best resource, to address major safety considerations for the owners/operators of DERs and first-responders – unless the DER equipment is owned, operated, or maintained by SCE.[8] Therefore, unless the question is asking specifically about major considerations of SCE-owned DER equipment, SCE proposes to focus the considerations to address the safety implications of DER equipment on the grid.

SCE also suggests that the Draft Guidance's requirement to describe "efforts to inform and engage relevant local authorities that may bear the responsibility for local permitting of DER equipment" should be narrowed to the extent that it addresses DER equipment owned or operated by customers and third parties because SCE does not have the ability to obtain, and does not bear responsibility for obtaining, permitting for third-party equipment. Generally, SCE does not work with local authorities that bear the responsibility for local permitting of DER equipment – unless the DER equipment is owned, operated, or maintained by SCE. In addition, SCE does not have the access or information to obtain permitting on behalf of a third party owner (who is the party that does have the access, the information and the responsibility). Therefore, unless the question is asking specifically about SCE efforts to engage local authorities regarding SCE's DER equipment, SCE is not the appropriate entity to respond to this requirement regarding DER equipment owned or operated by customers and third parties.

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[8] While SCE is not the appropriate authority or best resource, SCE does support the Commission's efforts to work with local permitting jurisdictions to develop streamlined guidance in this area.

IV. CONCLUSION

SCE appreciates the opportunity to submit these comments.

Respectfully submitted,

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